

Finals Lab Task 7.

MySQL CRUD Operations in Python Using GUI Tkinter

Step 1. Make sure you install the necessary prerequisites:

- MySQL-Connector** in Pycharm
- Activate xampp (Apache and Mysql)
- Create a database named: cars
- Import the sql file (cars.sql) to load the tables and records

Step 2. See the GUI Design of the Demo interface



ID	Model	Year	Color	EngineCapacity	EnginePower	EngineType	Transmission	Price
1	BMW X3	2022	Black	3000	350	Petrol	A	50000.00
2	BMW 3 Series	2021	White	2000	250	Diesel	M	40000.00
3	BMW M5	2023	Blue	4000	600	Petrol	A	80000.00
4	BMW 5 Series	2022	Silver	2500	300	Diesel	A	45000.00
5	BMW X3	2023	Black	3000	240	Petrol	A	38000.00
6	BMW 7 Series	2021	White	3500	400	Diesel	M	65000.00
7	BMW X1	2022	Blue	1800	200	Petrol	A	32000.00
8	BMW 4 Series	2023	Red	3000	330	Petrol	A	48000.00
9	BMW X8	2022	Black	4000	500	Diesel	M	75000.00
10	BMW i3	2021	Silver	1500	170	Electric	A	35000.00
11	BMW M4	2023	Blue	3000	430	Petrol	M	62000.00
12	BMW X2	2022	White	2000	230	Diesel	A	36000.00
13	BMW 8 Series	2023	Black	4400	600	Petrol	A	95000.00
14	BMW X7	2022	Silver	4500	550	Diesel	A	85000.00
15	BMW 2 Series	2023	Black	1800	200	Petrol	M	32000.00
16	BMW M2	2021	White	3000	365	Petrol	A	54000.00
17	BMW X4	2022	Blue	2000	240	Diesel	A	41000.00
18	BMW 6 Series	2023	Red	3500	420	Petrol	M	68000.00
19	BMW i8	2022	Black	1500	170	Electric	A	75000.00
20	BMW X6	2022	White	3000	400	Diesel	M	68000.00
21	BMW 4 Series	2023	Black	2500	320	Petrol	A	48000.00
22	BMW X3	2022	Blue	2000	240	Petrol	A	38000.00
23	BMW M8	2021	Red	3000	450	Petrol	M	62000.00
24	BMW X2	2022	White	2000	230	Diesel	A	36000.00
25	BMW 7 Series	2023	Black	4000	500	Diesel	M	77000.00
26	BMW i3	2022	Silver	1500	170	Electric	A	35000.00
27	BMW X5	2021	Blue	3000	330	Petrol	A	52000.00
28	BMW 3 Series	2023	Red	2000	250	Diesel	M	41000.00

Step 3. Try the code below:

Get the copy of the following files and load in pycharm:

Link here:

https://drive.google.com/drive/folders/1e6Eh55qLAwepf0A_I8GKh70eIW6jAxJj?usp=sharing

1. connectDb.py
2. main.py
3. window.py

Step 4. Run the program main.py (and test all the functions (CRUD)) it should be free from errors.

Make a screenshot of your output as proof that you were able to configure the program properly

Step 5. Add the ff: Functions in the GUI. *Choose 1 only*

1. Insert a Label and Text widget below the reload button that will display the

ff: infos: a. *the total Number of Records,*

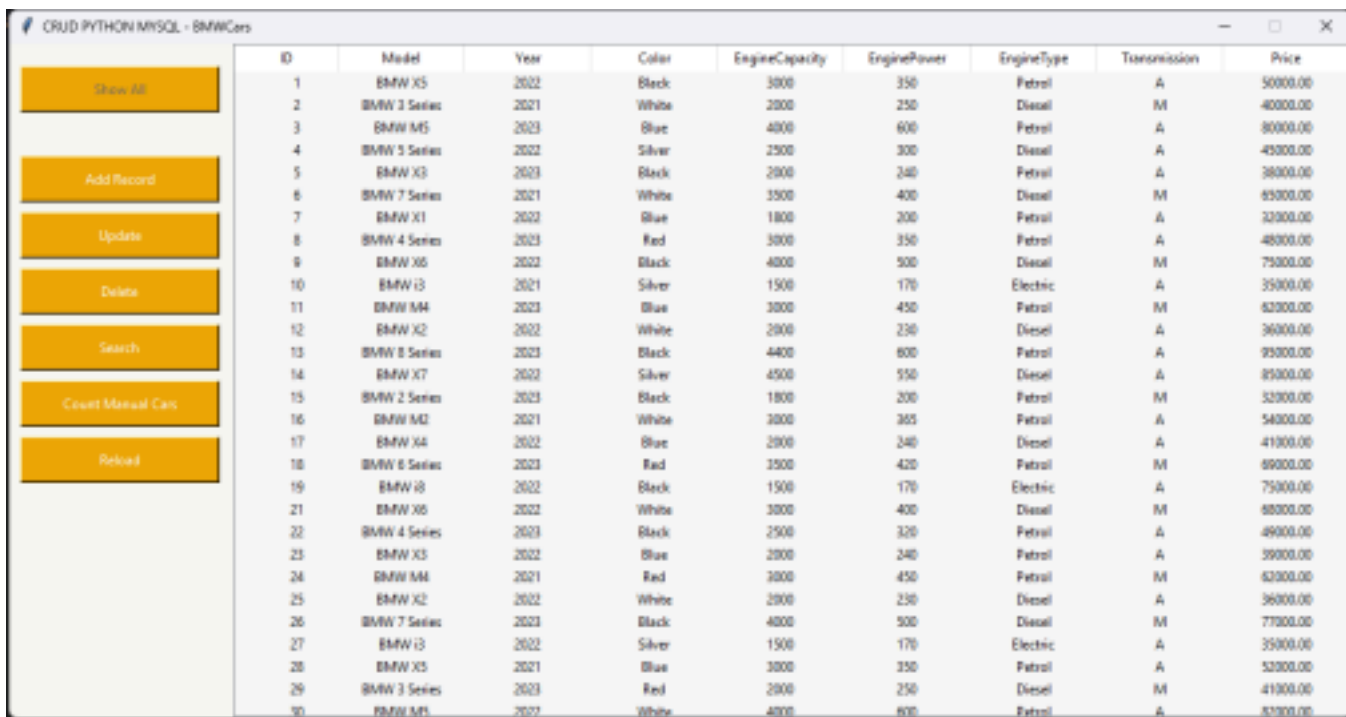
b. *Car Model with the Highest Price,*

c. *Total Number of Manual*

d. *Total number of and Automatic Cars*

Chosen is **C**

OUTPUT:



ID	Model	Year	Color	EngineCapacity	EnginePower	EngineType	Transmission	Price
1	BMW X5	2022	Black	3000	350	Petrol	A	50000.00
2	BMW 3 Series	2021	White	2000	250	Diesel	M	40000.00
3	BMW M5	2023	Blue	4000	600	Petrol	A	80000.00
4	BMW 5 Series	2022	Silver	2500	300	Diesel	A	45000.00
5	BMW X3	2023	Black	2000	240	Petrol	A	38000.00
6	BMW 7 Series	2021	White	3500	400	Diesel	M	65000.00
7	BMW X1	2022	Blue	1800	200	Petrol	A	32000.00
8	BMW 4 Series	2023	Red	3000	350	Petrol	A	48000.00
9	BMW X6	2022	Black	4000	500	Diesel	M	75000.00
10	BMW i3	2021	Silver	1500	170	Electric	A	35000.00
11	BMW M4	2023	Blue	3000	450	Petrol	M	62000.00
12	BMW X2	2022	White	2000	230	Diesel	A	36000.00
13	BMW 8 Series	2023	Black	4400	600	Petrol	A	95000.00
14	BMW X7	2022	Silver	4500	550	Diesel	A	85000.00
15	BMW 2 Series	2023	Black	1800	200	Petrol	M	32000.00
16	BMW M2	2021	White	3000	365	Petrol	A	54000.00
17	BMW X4	2022	Blue	2000	240	Diesel	A	41000.00
18	BMW 6 Series	2023	Red	3500	420	Petrol	M	69000.00
19	BMW i8	2022	Black	1500	170	Electric	A	75000.00
21	BMW X8	2022	White	3000	400	Diesel	M	68000.00
22	BMW 4 Series	2023	Black	2500	320	Petrol	A	49000.00
23	BMW X3	2022	Blue	2000	240	Petrol	A	39000.00
24	BMW M4	2021	Red	3000	450	Petrol	M	62000.00
25	BMW X2	2022	White	2000	230	Diesel	A	36000.00
26	BMW 7 Series	2023	Black	4000	500	Diesel	M	77000.00
27	BMW i3	2022	Silver	1500	170	Electric	A	35000.00
28	BMW X5	2021	Blue	3000	350	Petrol	A	52000.00
29	BMW 3 Series	2023	Red	2000	250	Diesel	M	41000.00
30	BMW M1	2022	White	4000	600	Petrol	A	53000.00

Function in Action

CRUD PYTHON MYSQL - BMW Cars

Show All

Add Record

Update

Delete

Search

Count Manual Cars

Reload

ID	Model	Year	Color	EngineCapacity	EnginePower	EngineType	Transmission	Price
1	BMW X5	2022	Black	3000	350	Petrol	A	50000.00
2	BMW 3 Series	2021	White	2000	250	Diesel	M	40000.00
3	BMW M5	2023	Blue	4000	600	Petrol	A	80000.00
4	BMW 5 Series	2022	Silver	2500	300	Diesel	A	45000.00
5	BMW X3	2023	Black	2000	240	Petrol	A	38000.00
6	BMW 7 Series	2021	White	2500	400	Diesel	M	65000.00
7	BMW X1	2022	Blue	1800	200	Petrol	A	32000.00
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9	BMW X6	2022	Black	4000	500	Diesel	M	75000.00
10	BMW i3	2021	Silver	1500	170	Electric	A	35000.00
11	BMW M4				450	Petrol	M	62000.00
12	BMW X2				230	Diesel	A	36000.00
13	BMW 8 Series				600	Petrol	A	95000.00
14	BMW X7				550	Diesel	A	85000.00
15	BMW 2 Series				200	Petrol	M	32000.00
16	BMW M2				365	Petrol	A	54000.00
17	BMW X4				240	Diesel	A	41000.00
18	BMW 6 Series				420	Petrol	M	69000.00
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26	BMW 7 Series	2023	Black	4000	500	Diesel	M	77000.00
27	BMW i3	2022	Silver	1500	170	Electric	A	35000.00
28	BMW X5	2021	Blue	3000	350	Petrol	A	52000.00
29	BMW 3 Series	2023	Red	2000	250	Diesel	M	41000.00
30	BMW M5	2022	White	4000	600	Petrol	A	82000.00

Manual Cars Count

Total number of manual transmission cars: 11

OK